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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TODD MARTIN BEAZLEY

Appeal 2009-004807
Application 10/567,050¹
Technology Center 2600

Decided: September 18, 2009

Before JOSEPH F. RUGGIERO, MARC S. HOFF, and THOMAS S.
HAHN, *Administrative Patent Judges*.

HOFF, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ The real party in interest is Thomson Licensing.

STATEMENT OF CASE

Appellant appeals under 35 U.S.C. § 134 from a Final Rejection of claims 1-25. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

Appellant's invention relates to noise filtering image data prior to compressing said image data. During filtering of the image data, the smoothing control signal is converted to a monochrome video signal that is provided to a display instead of, or in addition to, the filtered image data. The displayed image representation of the smoothing control signal highlights edge activity in the filtered image, making it easier to locate noisy areas in the image data and fine-tune the amount of filtering to further reduce noise present in the image data and yet leave the desired image details alone (Spec. 2).

Claims 1 and 8 are exemplary of the claims on appeal:

1. A method use in removing noise from image data, the method comprising:
 - receiving image data representing an image;
 - filtering the received image data to remove noise therefrom and to provide filtered image data; and
 - displaying where the filtering is being performed on the received image data.
8. A method for use in processing image data, the method comprising:
 - filtering image data to provide filtered image data;
 - converting a control signal used in the filtering to a video signal; and
 - displaying an image representative of the video signal;wherein the displayed image indicates where the image data is being filtered.

The Examiner relies upon the following prior art in rejecting the claims on appeal:

Chun	5,949,916	Sep. 7, 1999
Tan	6,697,534 B1	Feb. 24, 2004
Alderson	6,973,218 B2	Dec. 6, 2005

Claims 1-3 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Alderson.

Claims 4-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Alderson in view of Tan.

Claims 7, 9, 10, 23, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Alderson in view of Tan and Chun.

Claims 8, 11-22, and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Alderson in view of Tan.²

Throughout this decision, we make reference to the Appeal Brief (“App. Br.,” filed February 19, 2008) and the Examiner’s Answer (“Ans.,” mailed May 15, 2008) for their respective details.

ISSUES

Appellant argues that Alderson does not anticipate the invention recited in claim 1, because Alderson merely teaches filtering image data, followed by displaying the results of said filtering, but not displaying (to a user) where the filtering is taking place (App. Br. 12). With respect to claim 8, Appellants reiterate that Alderson does not teach all the limitations recited, and argue further that combining Alderson with Tan would not have

² The Examiner’s Answer refers to these claims as being rejected over “Alderson ... as applied to claims 1-6, 7, 9, 10, 23, 24, and 25 above and further in view of Tan” (Ans. 7). Notwithstanding that claims 7, 9, 10, 23, and 24 stand rejected over Alderson in view of Tan *and* Chun, we will treat claims 8, 11-22, and 25 as being rejected over Alderson in view of Tan only.

been obvious, because Tan teaches away from the claimed invention (App. Br. 13).

Appellant's contentions thus present us with the following two issues:

1. Has Appellant shown that the Examiner erred in finding that Alderson teaches displaying where the filtering is (contemporaneously) being performed on the image data, as claim 1 requires?
2. Has Appellant shown that the Examiner erred in finding that Alderson in combination with Tan teaches converting a control signal used in filtering to a video signal, and displaying an image representative of the video signal, wherein the displayed image indicates where the image data is (contemporaneously) being filtered, as claim 8 requires?

FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

The Invention

1. According to Appellant, the invention concerns noise filtering image data prior to compressing said image data (Spec. 1).
2. During filtering of the image data, the smoothing control signal is converted to a monochrome video signal that is provided to a display instead of, or in addition to, the filtered image data (Spec. 2).
3. The displayed image representation of the smoothing control signal highlights edge activity in the filtered image, making it easier to locate noisy areas in the image data and fine-tune the amount of filtering to further reduce noise present in the image data and yet leave the desired image details alone (Spec. 2; Fig. 5).

4. Appellant discloses that an operator may view a preview image on display and decide to adjust filtering parameters to achieve a “perceived” level of brightness (Spec. 5; see Fig. 3).

Alderson

5. Alderson teaches that image data is noise-filtered (Fig. 5, step 516), and subsequently, that noise-filtered image data (“processed as described above”) can then be displayed on a display device (col. 10, ll. 10-17 and 37-44; Fig. 5, step 518).

Tan

6. Tan teaches adaptively computing a crispening parameter for a local region of a captured image based, at least in part, on a measure of the local contrast and the local brightness (col. 1, ll. 41-43).

7. Tan teaches that employing human judgment to adjust the sharpness of an image or series of images is frequently not practical or desirable (col. 2, ll. 43-45).

Chun

8. Chun teaches a filtering method and a modified automatic regressive filter therefor (Abstract).

PRINCIPLES OF LAW

“A rejection for anticipation under section 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art reference.” *See In re Buszard*, 504 F.3d 1364, 1366 (Fed. Cir. 2007) (quoting *In re Paulsen*, 30 F.3d 1475, 1478-79 (Fed. Cir. 1994)). Anticipation of a claim requires a finding that the claim at issue reads on a prior art reference. *Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1346

(Fed. Cir. 1999) (quoting *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 781 (Fed. Cir. 1985)).

On the issue of obviousness, the Supreme Court has stated that “the obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007). Further, the Court stated “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* at 416. “One of the ways in which a patent’s subject matter can be proved obvious is by noting that there existed at the time of the invention a known problem for which there was an obvious solution encompassed by the patent’s claims.” *Id.* at 419-420.

ANALYSIS

CLAIMS 1-3

The Examiner finds that Alderson teaches “displaying where the filtering is being performed on the received image data,” as recited in claim 1, because Alderson teaches filtering the noise in acquired image data (Fig. 5, block 516) followed by the display of the filtered image data frame (Fig. 5, block 518). Appellant argues that because Alderson’s displaying is not contemporaneous with its filtering, in that Alderson teaches concluding the filtering process, followed by displaying the results of said filtering, Alderson cannot anticipate claim 1 (App. Br. 12).

We find Appellant’s position persuasive to establish Examiner error. Independent claim 1 requires “displaying where the filtering is being performed on the received image data.” Construing the claim in light of Appellant’s Specification, “where” clearly refers to the location or locations

in the image at which modification, by the filter, is occurring (FF 3). The present tense “is” used in the claim clearly establishes that the process occurs in real time, and/or that user interaction is invited before actual filtering, i.e., alteration of the image data, is completed (FF 4). With this claim construction, the Examiner’s finding that Alderson anticipates claim 1 is erroneous. Alderson teaches only that image data is noise-filtered, and *subsequently*, that noise-filtered image data (“processed as described above”) can then be displayed on a display device (FF 5). Alderson does not teach “displaying *where* the filtering *is* being performed” (emphasis added) within the meaning we must ascribe to those terms in light of Appellant’s Specification.

Thus, we find error in the Examiner’s rejection of claims 1-3 under 35 U.S.C. § 102(e) as anticipated by Alderson, and we will not sustain the rejection.

CLAIMS 4-6

These claims depend from independent claim 1. We reverse the § 102 rejection of claim 1, *supra*. We have reviewed Tan, and find that it does not remedy the deficiencies of Alderson that we have noted. Thus, we will also reverse the rejection of dependent claims 4-6, rejected under § 103, for the same reasons expressed with respect to the rejection of claim 1, *supra*.

CLAIMS 8, 11-22, AND 25

Independent claim 8 recites “converting a control signal used in the filtering to a video signal,” and “displaying an image representative of the video signal; wherein the displayed image indicates where the image data is being filtered.” Independent claim 17 recites “converting the at least one

filter control signal to a video signal,” and “displaying an image representative of the video signal.” Independent claim 19 recites “a video converter for converting at least one control signal of the filter to a video signal; and a display for showing an image representative of the video signal.” Independent claim 21 recites “a filter preview element for providing a video signal representative of the control signal within the video processing element; and a display for showing an image representative of the video signal, wherein the image provides a visual indication of where noise is being removed from the image data.” Independent claim 22 recites “a video converter for converting the filter control signal to a video signal; and a display for showing an image representative of the video signal.” Independent claim 25 recites “enabling selection of one of a number of display modes ... wherein at least one of the number of display modes is associated with displaying where filtering of noise in the image data is occurring.”

Appellant argues that Alderson does not describe or suggest displaying where filtering is being performed, as required by claim 8 (App. Br. 13). Appellant further argues that there is no reason to modify Alderson to include adaptively computing a crispening parameter, as taught by Tan (FF 6), because Tan discloses addressing a problem where “employing human judgment to adjust the sharpness of an image or series of images is frequently not practical or desirable” (App. Br. 13; FF 7), whereas Appellant’s invention calls for displaying where filtering is being performed so that filter settings can be adjusted by a user, i.e. employing human judgment (App. Br. 13).

We agree with Appellant. As noted with respect to claim 1, *supra*, we find that Alderson does not display an image indicating where image data is (contemporaneously) being filtered, as required in claims 8 and 25. We further find that Alderson does not teach converting at least one filter control signal to a video signal, nor displaying an image representative of that video signal, as required in claims 17, 19, and 22. We find that Alderson does not teach providing a video signal representative of a control signal within the video processing element, and a display for showing an image representative of the video signal, as required in claim 21. Finally, we agree with Appellant that Tan's teaching that "employing human judgment to adjust the sharpness of an image is frequently not practical or desirable" teaches away from Appellant's disclosed invention, in which human judgment in adjusting a filter is a principal objective.

We find that the combination of Alderson and Tan fails to teach all of the elements of claims 8, 11-22, and 25. Thus, we find that the Examiner's rejection of claims 8, 11-22, and 25 under § 103 is erroneous, and we will not sustain the rejection.

CLAIMS 7, 9, 10, 23, AND 24

Claim 7 depends from claim 1; claims 9 and 10 depend from claim 8; and claims 23 and 24 depend from claim 22. We reverse the rejections of claims 1, 8, and 22, as noted *supra*. We have reviewed Chun, and find that it does not remedy the above-noted deficiencies of Alderson and Tan. Therefore, we will not sustain the rejection of claims 7, 9, 10, 23, and 24 as being obvious over Alderson in view of Tan and Chun, for the same reasons expressed *supra* with respect to the rejections of parent claims 1, 8, and 22.

CONCLUSIONS OF LAW

1. Appellant has shown that the Examiner erred in finding that Alderson teaches displaying where the filtering is (contemporaneously) being performed on the image data.
2. Appellant has shown that the Examiner erred in finding that Alderson in combination with Tan teaches converting a control signal used in filtering to a video signal, and displaying an image representative of the video signal, wherein the displayed image indicates where the image data is (contemporaneously) being filtered.

ORDER

The Examiner's rejection of claims 1-25 is reversed.

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Application 10/567,050

REVERSED

ELD

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